Appendix E

Chemical Agent Resistant Coating (CARC)

Most surfaces absorb chemical contamination. Once an agent has been absorbed it is very difficult and time consuming to remove. The agent cannot be neutralized until a decontaminant would also be absorbed into the surface and contacts the agent. This takes time. If decontaminant does not remain on the surface long enough, any chemical agents that have been absorbed will remain and gradually desorb, releasing toxic vapor into the air. Only heat can speed the resorption process.

To preclude the absorption of chemical agents into metal surfaces, fielded Army equipment is painted with a hardened polyurethane paint, a chemical agent resistant coating (CARC). These are paints that resist absorption of chemical contamination. These coatings make decon methods easier and more effective. The advantage is much less decontaminant is required, as much as 50 percent less.

Contamination will stay on top of CARC surfaces where it can more easily be neutralized or removed. Although the contamination is easier to remove, the agent will remain a transfer hazard until the contamination is removed. CARC prevents most of the resorption hazard that sustains the transfer hazard.

Contamination is easily removed from CARC surfaces, except for thickened agents. Detergents mixed with water probably will remove (but not destroy) the contamination. Caustic decontaminants may not be needed.

Caustic decontaminants applied to these surfaces react more easily with the contamination. However, contamination can still seep into cracks and crevices, making it difficult to remove.

Many surfaces, such as rubber, canvas, wood, and plastic cannot be covered with CARC. These surfaces absorb chemical agents and can still desorb them after decontamination.

Use proper CARC paint color when painting or repainting bumper numbers, interior, spot painting, etc. CARC paint is available in all colors within the supply system. Other paints are not authorized to be used in lieu of CARC.